Application S/N 10/511478
Response to Office Action Dated 12/20/2006

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) An ultrasonic probe, comprising an ultrasonic element for transmitting and receiving ultrasonic waves; and a sound window enclosing the ultrasonic element; and a sound propagation liquid charged in the sound window,

wherein on an internal wall surface of the sound window, a barrier layer capable of inhibiting the preventing permeation of liquids and gases into a material constituting the sound window and thus maintaining a pressure inside the sound window is provided on a wall surface of the sound window by being polymerized into a layer form or by being attached.

2. (Cancelled)

3. (Original) The ultrasonic probe according to claim 1, wherein the barrier layer comprises at least one selected from a polyparaxylylene layer and a metal layer.

4. (Original) The ultrasonic probe according to claim 3, wherein the barrier layer comprises a polyparaxylylene layer and the layer thickness of the polyparaxylylene layer is in the range from 0.1 μm to 500 μm.

5. (Original) The ultrasonic probe according to claim 3, wherein the barrier layer comprises a polyparaxylylene layer and the polyparaxylylene layer is formed by vapor deposition of diparaxylylene or the derivative thereof.

6. (Original) The ultrasonic probe according to claim 3, wherein the barrier layer comprises a metal layer and the metal layer comprises at least one selected from the group consisting of aluminum, gold, nickel and platinum.

Page 3

Application S/N 10/511478
Response to Office Action Dated 12/20/2006

7. (Original) The ultrasonic probe according to claim 3, wherein the barrier layer comprises a metal layer and the thickness of the metal layer is in the range from 0.1 μm to 30 μm.

8. (Original) The ultrasonic probe according to claim 1, wherein the barrier layer comprises a plurality of layers.

Page 4